Abstract

The present invention relates to mixtures for preparing transparent plastics, encompassing

a) a prepolymer prepared from compounds of the formula (I) and (II)

$$\begin{array}{c|c}
R^1 & R^2 \\
\hline
O & O
\end{array}$$
(I)

where each R¹, independently of the others, is hydrogen or a methyl radical,

each R^2 , independently of the others, is a linear or branched, aliphatic or cycloaliphatic radical, or a substituted or unsubstituted aromatic or heteroaromatic radical, and each of m and n, independently of the other, is a whole number greater than or equal to 0, where m + n > 0, and from compounds of the formula (III), or from alkyl dithiols or from polythiols, preferably

HS-R³-SH (III)

where R^3 , identical with or different from R^2 , can be as defined for R^2 , and

- b) at least one monomer (A) capable of free-radical polymerization and having at least 2 methacrylate groups, and
- c) aromatic vinyl compounds, such as styrene, and
- d) if appropriate, a monomer capable of free-radical

polymerization and having at least two terminal olefinic groups whose reactivity differs, and/or

e) if appropriate, at least one monomer (B) from the group of the methacrylates, preferably 2-hydroxyethyl methacrylate.